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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,273	05/23/2002	Motohiro Arifuku	566.41244X00	1700

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EXAMINER

MOORE, MARGARET G

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,273

Applicant(s)

ARIFUKU ET AL.

Examiner

Margaret G. Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 5 and 7 to 24 is/are pending in the application.
- 4a) Of the above claim(s) 8 to 17, 22 to 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 to 5, 7 and 18 to 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Applicants' election without traverse of Group I, claims 1 to 5, 7 and 18 to 21, is acknowledged. Note that this application has been transferred and is currently being examined by Margaret Moore.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 to 5, 7 and 18 to 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taki et al.

Initially the Examiner would like to note that the phrase "wiring terminal connecting adhesive" indicates a future intended use for the claimed composition. Since the composition is fully defined by the components required therein, this phrase does not lend any patentable weight to these claims.

Taki et al. teach thermal transfer recording sheets that contain an elastomeric fine particle of a silicone rubber and a binder. The particles meet the claimed average particle diameter range (see for instance the particles used in the working examples). Taki et al. do not teach the modulus of elasticity of the silicone particles. However clearly elasticity is a desirable trait in the silicone particles. Note for instance that patentees measure the "compressibility", which would appear to be directly related to the elasticity of the particles. Also, column 2 refers to the fact that these particles are elastomeric. Applicants' required modulus of elasticity is quite broad. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. As such one having ordinary skill in the art would have found the use of silicone particles falling within the broadly claimed range of modulus of elasticity to have been obvious.

The binders used in conjunction with the silicone particles are taught on the top of column 3 and include heat curable resins such as polyester acrylate, epoxy acrylate

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or polyol acrylate. This meets the claimed radically polymerizable substance and, since the monomers are heat curable, suggests the addition of a curing agent that generates a free radical upon heating. For instance, note the composition formed in Table 1. This differs from the instant claims (outside the modulus limitation addressed supra) in that the polymerization initiator is a radiation initiator rather than a heat initiator. However, since column 3 teaches that the composition can be radiation or heat curable, one having ordinary skill in the art would have realized that an initiator that produces free radicals upon heating could have been used in the alternative to the initiator that produces free radicals upon radiation. In the binder composition shown, such initiators amount to functional equivalents. Thus, since it would have been obvious to include a curing agent capable of generating free radical upon heating in the composition of Taki et al., the instant claims are rendered obvious over this prior art reference.

With regards to claim 2, note the top of column 3, which teaches this amount. With regards to claims 3 and 4, note that the binder can be a phenoxy resin. Thus the skilled artisan would have found the combination of operable binder resins (that is, the combination of a heat curable resin and a phenoxy resin) to have been obvious. Note that it is prima facie obvious to combine two compositions, each of which is taught by prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. The idea for combining said compositions flows logically from their having been individually taught in the prior art. With regards to claim 7, note column 3, which teaches the optional addition of alumina, which is a thermally conductive particle.

4. The remaining references are cited as being of general interest. The Examiner notes that the references cited by applicants in their IDS having composition with a silicone elastomeric particle are drawn to photopolymerizing compositions. Pack teaches a polymeric binder composition that contains a silicone elastomeric particle but this is also UV curable.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
9/15/04